Remarks

The Applicant does not believe that examination of the foregoing amendment will result in the introduction of new matter into the present application for invention. Therefore, the Applicant, respectfully, requests that the foregoing amendment be entered and that the claims to the invention, kindly, be reconsidered.

The Office Action dated November 18, 2004 has been received and carefully considered by the Applicant. Claims 1-57 are currently pending in the present application for invention. Claims 1-34, 36, 37, 39-42, 48 and 55 are rejected by the Office Action dated November 18, 2004. Claims 35, 38, 43-47, 49-52, 54 and 56-57 are allowed. Claim 53 is objected to; which objection has been remedied by the foregoing amendment to the claims. .

The Office Action dated November 18, 2004 rejects Claim 25 under the provisions of 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out the invention. Regarding Claim 25, the Examiner states that there is insufficient antecedent basis for the term "the encoder means". The foregoing amendment to the claims has corrected this oversight.

The Office Action dated November 18, 2004 rejects Claims 9, 10, 16 30, 31, 48 and 55 under the provisions of 35 U.S.C. §101 as being directed to non–statutory subject matter. The Examiner states that data on a disk is not statutory unless that data is a data structure. The Applicant, respectfully, disagrees with this assertion contained in the Office Action. However, in an effort to move this case towards allowance, the foregoing amendment to the claim has modified Claims 9, 10, 16 30, 31, 48 and 55 to define subject matter wherein the second bitpattern is different from the first bitpattern. The foregoing amendment to the claims has also redefined the medium mark and the watermarmark to distinctly point out that the first and second bit patterns are contained within the medium mark and the watermark rather than simply "represented" therein. The Applicant, respectfully, submits that the foregoing clearly recites statutory subject matter.

The Applicant, respectfully, points out that the definition of a "data structure" as given in the MPEP at §2106 IV B.1 is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." This definition of "data structure" used by the MPEP at §2106 IV B.1 is from The New IEEE Standard Dictionary of

Electrical and Electronics Terms 308 (5th ed. 1993). The Applicant, respectfully, submits that the rejected claims clearly provide a physical or logical relationship among data elements, i.e. a medium mark represented by a first bitpattern and a watermark representing a second bitpattern different from the first bitpattern and having a predefined relationship to the first bitpattern. There is clearly at least a logical relationship between the first and second bit patterns. Moreover, the rejected claims recite elements for first and second bitpatterns that are contained in the medium mark and the watermark, respectively. The first and second bitpatterns clearly support specific data manipulation. It is sufficient under the provisions of 35 U.S.C. §101 that the data structures and computer programs employed impart functionality. Any data structure is capable of imparting functionality. A data structure on a record carrier does not necessarily force a computational element to perform functions, however, a data structure allows the computational element to impart the functionality that is defined by the data structure. The Applicant, respectfully, asserts that elements recited by the rejected claims impart functionality and therefore, recite statutory matter under the provisions of 35 U.S.C. §101.

The Office Action dated November 18, 2004 rejects Claims 1-34, 36, 37 and 39-42 under the provisions of 35 U.S.C. §103(a) as being obvious over U. S. Patent No. 5,761,301 issued in the name of Oshima et al. (hereinafter referred to as Oshima et al.) in view of U. S. Patent No. 6,205,249 issued in the name of Moskowitz (hereinafter referred to as Moskowitz) and U. S. Patent No. 5,607,188 issued in the name of Bahns et al. (hereinafter referred to as Bahns et al.). The Examiner's position is that a person of ordinary skill within the art would find it obvious to create the subject matter defined by the rejected claims having viewed the prior art references of the medium mark and the digital signature on an optical disk as taught by Oshima et al. with the embedding of digital signatures into content as watermarks as taught by Moskowitz and still further with the watermarking of an optical disc as taught by Bahns et al. The Applicant's position is that this combination is untenable, or alternatively, if this combination is made the invention as defined by the rejected claims does not result.

The rejected claims define subject matter for first and second bitpatterns having a predefined relationship. The medium mark is defined as comprising the first bitpattern and an embedded watermark is defined as the second bitpattern. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested

by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

In the section Response to Arguments contained within the Office Action, the Examiner states that Oshima et al. teach a medium mark is used to form a digital signature; which digital signature corresponds to the second bit pattern defined by the rejected claims. The Applicant, respectfully, points out that Oshima et al. teach forming a mark within a reflective film (see col. 2, lines 61-64). Note, that there is no bit pattern taught or suggested by Oshima et al. that is used to form the mark. Oshima et al. teach that the mark is randomly formed with an accuracy that is higher than can be formed with equipment available to pirates and the position information of the mark is recorded by placing a bar code on the disc (see col. 3, lines 1-13). The digital signature for the position information of the mark, as taught by Oshima et al., is recorded on the disc (see col. 3, lines 16-18). The digital signature as taught by Oshima et al. corresponds to the position of the mark taught Oshima et al. The second bit pattern defined by the rejected claims has a predefined relationship with the first bit pattern. The Examiner has failed to indicate how the digital signature of Oshima et al. has any relationship with any bit pattern, whatsoever. The digital signature of Oshima et al. is enciphered positional information that relates to the above discussed mark formed in the reflective film and not to any bit pattern. Therefore, the digital signature of Oshima et al. does not correspond to the second bit pattern as defined by the rejected claims.

In the Response to Arguments section of the Office Action, the Examiner states that Bahns et al. teach that a mark on an optical disc can be used as identifying and authenticating information on an optical disc. The Examiner states that Bahns et al. teach that this information may or may not be readable and cites col. 4, lines 51-55 to support the contention that the mark can be applied to a data-carrying signal. The Applicant, respectfully, points out that this is a clear misreading Bahns et al. at col. 4, lines 51-55. Bahns et al. at col. 4, lines 51-55 simply states that the photoresist should interfere with the with the laser readout interpretation of pits and lands. If fact, Bahns et al. goes on to state that the watermark can be applied to the back of the disc or in an area which contains "dummy data". It is very clear that watermark as taught by Bahns et al. can not possibly, in any way, manner or form, be considered data. It would be readily apparent to any person skilled in the art that the watermark taught by

Bahns et al. is formed on the land areas and contains no computer readable data. It would be readily apparent to any person skilled in the art that it is impossible in the realm of quaterwave technology to reduce data carrying portions in the manner that the land portions (non-data carrying portions) of Bahns et al. are reduced any still maintain data integrity.

In the Response to Arguments section of the Office Action, the Examiner further states that when the identifying and authentication information of Bahns et al. is embedded in the medium mark of Oshima et al. the content of the identifying mark reads on the first bit pattern defined by the rejected claims. The Applicant, respectfully, submits that it is not possible to embed the identifying and authentication information of Bahns et al. in the medium mark taught by Oshima et al. The mark taught by Oshima et al., as previously discussed, is formed on a separate reflective layer. The identifying and authentication information taught by Bahns et al. is formed by reducing the height of non-data carrying land areas. The processes of Bahns et al. and Oshima et al. are not compatible. If a combination of Bahns et al. and Oshima et al. was actually made, the result would be the identifying and authentication information taught by Bahns et al. being formed on a separate reflective layer as taught by Oshima et al. Or, conversely, the medium mark taught by Oshima et al. formed on the non-data carrying lands areas of Bahns et al. that have had their height reduced. Neither constitutes the first bit pattern as defined by the rejected claims.

In the Response to Arguments section of the Office Action, the Examiner further states that Moskowitz teaches embedding digital signatures into content as watermarks. The Applicant, respectfully, points out that Moskowitz teach transformation functions that pertain to watermarking and not to the actual placement of a watermark on record carriers.

The Examiner cites a portion of Moskowitz discussing keys being used to encode digital watermarks. The Applicant, respectfully, point out that the cited portion of Moskowitz does not disclose, or suggest, a first bitpattern is employed for a medium mark and a second bitpattern is employed for a watermark, with the first and second bitpatterns having a predefined relationship.

The Examiner cites Bahns et al. which discloses element 10 serving as a watermark 10 against the elements of the present invention defining first and second bit patterns having a predefined relationship used to encode digital watermarks. The Applicant does not concur that even the broadest of interpretations can construe the non-data carrying

lands that have their heights reduced as bits. Bits are computer readable, as previous discussed the picture of Bahns et al. is not composed of computer readable elements. Simply put, this rejection does not address the specific subject matter defined by the rejected claims of medium mark comprising the first bitpattern and the embedded watermark as comprising the second bitpattern wherein the first and second bitpatterns have a predefined relationship.

The Applicant, respectfully, reiterates that Oshima et al. teach forming a mark within a reflective film and that there is no bit pattern taught or suggested by Oshima et al. that is used to form the mark. Oshima et al. teach that the mark is randomly formed and the position information of the mark is recorded by placing a bar code on the disc. The digital signature for the position information of the mark, as taught by Oshima et al., is recorded on the disc. The second bit pattern defined by the rejected claims has a predefined relationship with the first bit pattern. The Examiner has failed to indicate how the digital signature of Oshima et al. has any relationship with any bit pattern.

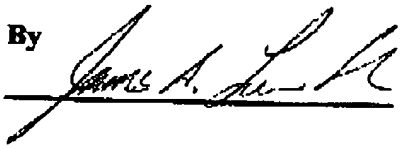
In an effort to move this case towards allowance, independent claims 1, 5, 9, 11, 22, 26, 30, 32, 41, 48 and 55 have been amended to define subject matter for the second bit pattern being contained within the watermark. The Applicant, respectfully, submits that the foregoing amendment defines subject matter wherein the second bitpattern must be contained within the watermark rather than represented by the watermark The Applicant, respectfully, asserts that this amendment should remove the elements of the rejected claims from being read so broadly as to encompasses the cited prior art references for the above stated reasons.

The foregoing amendment to the claims adds new Claims 58-68 that depend from independent claims 1, 5, 9, 11, 22, 26, 30, 32, 41, 48 and 55. New Claims 58-68 defines subject matter for the medium mark being contained in a wobble of a track of the information carrier, the wobble representing the first bit pattern; which the Examiner has indicated as being allowable. Therefore, new Claims 58-68 are believed to be allowable.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

Respectfully submitted,

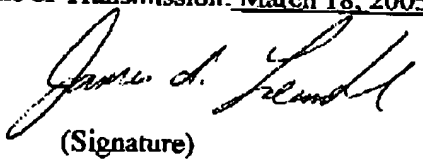
By 

James D. Leimbach, Reg. 34,374

Patent Attorney (585) 381-9983

CERTIFICATE OF TRANSMISSION
I hereby certify that this correspondence is being transmitted on this date via facsimile transmission to (703) 872-9306 AND addressed to:
COMMISSIONER OF PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Date of Transmission: March 18, 2005



(Signature)